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09/689,774	10/13/2000	Akio Katsube	018976-181	8104
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EXAMINER COZART, JERMIE E				
ART UNIT		PAPER NUMBER		
3726				
NOTIFICATION DATE		DELIVERY MODE		
04/10/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

09/689,774

Applicant(s)

KATSUBE ET AL.

Examiner

Jermie E. Cozart

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 9-14 and 19 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7 and 19 is/are rejected.
- 7) ☒ Claim(s) 9-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spaeth (5,812,570) in view of Kauppila (3,733,685).

Regarding claim 7, Spaeth discloses manufacturing electronic parts by providing a holding jig (12, 39) made of an elastic material (39), wherein at least one surface of the elastic material (39) is adhesive (col. 5, lines 13-15), mounting a substrate (3) on the holding jig (12, 39) by an adhesive strength of the surface of the elastic material (39), mounting an element (1) onto the substrate (3) and electrically connecting [via wire 37] the element (1) to the substrate (3) while the substrate (3) is held on the surface of the elastic material (39). *See column, line 66 – column 5, line 16, and figure 1 for further clarification.*

Spaeth, however, does not disclose applying ultrasonic waves to a bonding portion at which the electric connection is performed while the substrate is held on the surface of the elastic material.

Kauppila discloses applying ultrasonic waves (i.e. ultrasonic bonding; col. 4, lines 11-20) to a bonding portion (12) at which the electric connection (col. 3, lines 11-12) is performed while the substrate (22, 32) is held on the surface of the elastic material (20). *See column 4, lines 11-20 and figure 1 for further clarification.*

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to ultrasonically bond a bonding portion of Spaeth at which the electric connection is performed, in light of the teachings of Kauppila, in order to effectively bond the parts together.

3. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spaeth/Kauppila.

Spaeth/Kauppila discloses all of the claimed subject matter as described in detail above except for the adhesive strength of the surface of the elastic material being 1 to 10 g/mm².

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the adhesive strength of the surface of the elastic material of Spaeth/Kauppila from between 1 to 10 g/mm², since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Allowable Subject Matter

4. Claims 9-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. In the Office Action Summary (PTOL-326) claims 9-14 were objected to, the claims were objected to as being dependent upon rejected base claim 7.

6. Applicant's arguments filed 1/23/09 have been fully considered but they are not persuasive.

Applicants' arguments with respect to claim 7 that the connecting material (39) is clearly not a holding jig, and that the connecting material is clearly part of the device and not a holding jig.

In response, the Examiner maintains that the holding jig (12, 39) is made of an elastic material (39). Claim 7 does not require the "entire" holding jig (12, 39) to be made of an elastic material. The fact that claim 7 merely requires "providing a holding jig made of an elastic material" includes and does not exclude a holding jig (12, 39) made of an elastic material (39) in addition to another type of material for jig portion (12). Components (12, 39) function or rather serve as a form of holding jig for the semiconductor device.

7. Regarding claim 19, the Examiner inadvertently left in the word "either" in paragraph 4, line 1 of the previous Office Action Mailed (11/19/08), however, it is clear from the record that claim 19 could not have been rejected solely by either Spaeth or Kauppila but only by the combination of Spaeth/Kauppila [as described on page 4, lines 1-7 of the Office Action mailed 11/19/08] since claim 19 depended from claim 7 which was rejected by the combination of Spaeth/Kauppila.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermie E. Cozart whose telephone number is 571-272-4528. The examiner can normally be reached on Monday-Thursday, 7:30 am - 6:00 pm.
10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jermie E Cozart/

Primary Examiner, Art Unit 3726

April 7, 2009